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Case No.: 57862US002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: JOSEPH, STEPHEN C.  
Application No.: 10/534093 Confirmation No.: 2416  
Filed: 27-OCT-2003 Group Art Unit 3752  
Title: SPRAY GUN RESERVOIR WITH OVERSIZE, FAST-FILL OPENING

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BRIEF ON APPEAL

Mail Stop: Appeal Brief-Patents  
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June 8, 2010  
Date

Cullen M. Wagner  
Signed by: Colleen M. Wagner

Dear Sir:

This is an appeal from the Office action mailed on December 9, 2009, finally rejecting claims 1, 3-7, 9-40 and 42-44. A Notice of Appeal in this application was filed on March 9, 2010, and was received in the USPTO on March 9, 2010.

Fees

- ☒ Any required fee under 37 CFR § 41.20(b)(2) will be made at the time of submission via EFS-Web. In the event fees are not or cannot be paid at the time of EFS-Web submission, please charge any fees under 37 CFR § 1.17 which may be required to Deposit Account No. 13-3723.
- ☐ Please charge any fees under 37 CFR §§ 37 CFR § 41.20(b)(2) and 1.17 which may be required to Deposit Account No. 13-3723.
- ☒ Please charge any additional fees associated with the prosecution of this application to Deposit Account No. 13-3723. This authorization includes the fee for any necessary extension of time under 37 CFR § 1.136(a). To the extent any such extension should become necessary, it is hereby requested.
- ☒ Please credit any overpayment to the same deposit account.

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### REAL PARTY IN INTEREST

The real party in interest is 3M Company (formerly known as Minnesota Mining and Manufacturing Company) of St. Paul, Minnesota and its affiliate 3M Innovative Properties Company of St. Paul, Minnesota.

### RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

### STATUS OF CLAIMS

Claims 1-47 comprise all of the claims in this proceeding.

Claims 1, 3-7, 9-40 and 42-44 are pending, stand rejected, and are the subject of this appeal.

Claims 2, 8, 41, and 45-47 were previously canceled.

No claims have been allowed or withdrawn from consideration.

### STATUS OF AMENDMENTS

No amendments were filed subsequent to the Office action mailed on December 9, 2009, finally rejecting claims 1, 3-7, 9-40 and 42-44.

### SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is the only independent claim involved in this appeal. Claim 1 is directed to a liquid supply assembly for use with a gravity-fed spray gun.

Referring to Figs. 8 to 10 and page 17, line 15 to page 19, line 8<sup>1</sup> to illustrate the following summary of the claimed subject matter, the liquid supply assembly comprises a reservoir 106 for a liquid to be sprayed. The reservoir comprises:

a liner 109 having a first end, a second end 109A spaced from the first end, a side wall 109B extending from the first end to the second end, a base at the second end, and an opening defined by the first end, wherein the liner 109 is able to stand on its own, unsupported; a lid 110 configured to fit within the opening in the liner 109, the lid having a central opening 130; a cap

member 132 positioned over the lid 110, the cap member 132 having a spout 131 providing a fluid outlet communicating with the liner 109, wherein the spout is connectable to a spray gun and wherein the opening 130 in the lid 110 is oversize relative to the spout; and

an outer container 108 for supporting the liner 109 wherein the cap member 132 is releasably secured to the reservoir and a marginal edge of the opening 130 in the lid 110 is spaced inwardly from the side wall 109B at the first end of the liner 109, and the reservoir can be detached from the cap member 132 for adding fluid to the reservoir through the opening 130 in the lid 110.

### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

#### **I. First Ground of Rejection**

Claims 1, 3-7, 11, 13-15, 20-27, 30-37, 40 and 42-45 stand rejected under 35 U.S.C. §103(a) as purportedly unpatentable over the combined teachings of PCT Publication No. WO 98/32539, Joseph et al. (hereinafter referred to as Joseph), and U.S. Patent No. 5,143,294 to Lintvedt (hereinafter referred to as Lintvedt).

#### **II. Second Ground of Rejection**

Claims 9, 10, 12 and 17-19 stand rejected under 35 U.S.C. §103(a) as purportedly unpatentable over the combined teachings of Joseph, Lintvedt, and PCT Publication No. WO 02/085533.

#### **III. Third Ground of Rejection**

Claims 16, 28 and 29 stand rejected under 35 U.S.C. §103(a) as purportedly unpatentable over the combined teachings of Joseph, Lintvedt, and U.S. Patent No. 6,595,441.

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<sup>1</sup> Page 17, lines 17 to 20, state that like reference numerals in the series 100 are used to indicate parts corresponding to Figures 1 to 7. Accordingly reference should also be made to page 12, line 7 to page 13, line 12, discussing Figures 1 to 7.

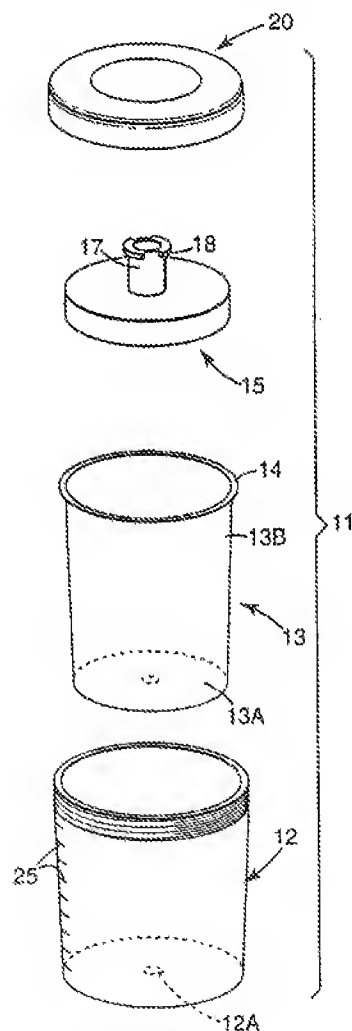
## ARGUMENT

### I. First Ground of Rejection

Claims 1, 3-7, 11, 13-15, 20-27, 30-37, 40 and 42-45 were rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph in view of Lintvedt.

#### **A. Joseph**

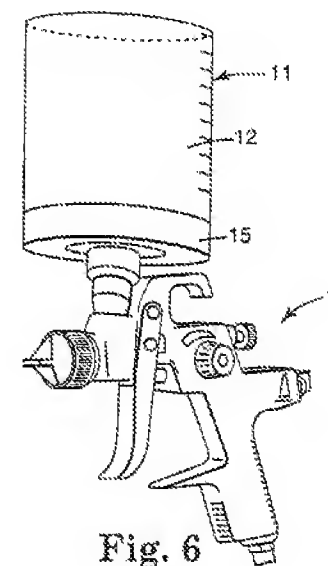
Appellants' invention substantially improves upon the paint pot or reservoir in Joseph. Joseph can be understood by referring to Figs 2, 3 and 6, shown here.



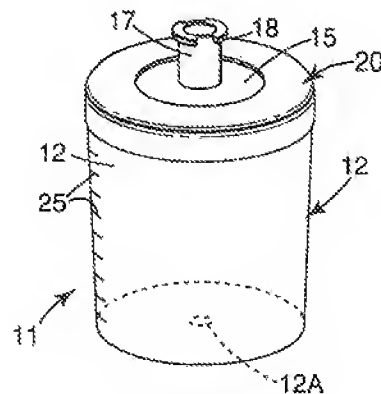
**Fig. 2**

Fig. 6 shows paint pot 11 attached to a spray gun 1. Fig. 3 shows the paint pot in an assembled configuration but removed from the spray gun. Fig. 2 is an exploded view of the paint pot in Fig. 3.

Paint pot 11 comprises an outer container 12, a disposable liner 13, a disposable lid 15, and a collar 20. Liner 13 corresponds in shape to (and is a close fit in) the interior of the container 12 and has a narrow rim 14 at the open end which sits on the top edge of the outer container. Lid 15 is a push-fit in the open end of liner 13 and a central aperture 16 (See Fig. 4) from which extends a connector tube 17 forming a fluid outlet. The connector tube 17 is provided at its free end with outward extensions 18



**Fig. 6**



**Fig. 3**

forming one part of a bayonet connection.

Lid 15 is held firmly in place on container 12 by annular collar 20 which screws onto the container on top of the lid. In the assembled condition, liner 13 and lid 15 form a reservoir for containing the paint or other liquid to be delivered to a nozzle on spray gun 1 via connector tube 17.

After spraying the liquid, paint pot 11 can be detached from spray gun 1, collar 20 released, and the lid/liner 15/13 assembly removed from outer container 12 and thrown away. The outer container and the collar can then be re-used with a new, clean liner and lid for supplying a different liquid to the spray gun. As a result, the amount of cleaning that is required is considerably reduced and the spray gun can be readily adapted to apply different liquids in a simple manner.

For some applications of the spray gun, a larger volume of liquid than the paint pot can hold may be required. For example, when painting a large area or applying several coats of the same liquid to the same or different vehicles such as when using a primer or lacquer finish.

In these circumstances, the user has to remove paint pot 11 from the spray gun, release collar 20, and remove lid 15 to allow the reservoir to be topped up. Lid 15 then has to be relocated on the open end of liner 13, collar 20 refitted, and paint pot 11 reattached to the spray gun to enable the user to continue spraying. This is time consuming and there is a risk of paint being spilled and/or contaminated by dust or dirt when lid 15 is removed.

Some users may try to re-fill the paint pot through connector tube 17, but this is even slower with increased risk of spillage due to the small size of the tube. The tube size is selected so that it can connect to the spray gun inlet, but this makes it difficult to freely pour liquid into the paint pot through the tube.

Also, the tube may contain a filter or a filter may be positioned in the lid across the inner end of the tube to remove any unwanted solid particles contained in the liquid withdrawn from the paint pot in use. Access to the filter requires disassembling the paint pot and the presence of a filter further slows the addition of liquid to the paint pot through the tube.

Furthermore, if the liquid contains solid particles these will be trapped on the wrong side of the filter if the paint pot is refilled by pouring the liquid through connector tube 17. As a result, when the paint pot is re-attached to the spray gun, the particles may be picked up with liquid withdrawn from the paint pot and pass to the spray gun. This may lead to a blockage

within the spray gun. Alternatively or additionally, the particles may be applied with the liquid to the surface being sprayed with the result that the surface may have to be re-sprayed.

In order to avoid these problems, some users fill two or more paint pots with the same liquid so that they can be fitted to the spray gun in turn when spraying large areas. This enables the user to change over the paint pots and continue spraying with the same liquid. However, filling and assembling several paint pots is time consuming and adds to operating costs. Each paint pot has a disposable liner and lid which is discarded after spraying. Using several paint pots for the same liquid is wasteful of the disposable items and requires the user to have available a sufficient number of outer containers and collars for assembling several paint pots at the same time.

#### B. Appellants' Invention Substantially Improves Upon Joseph

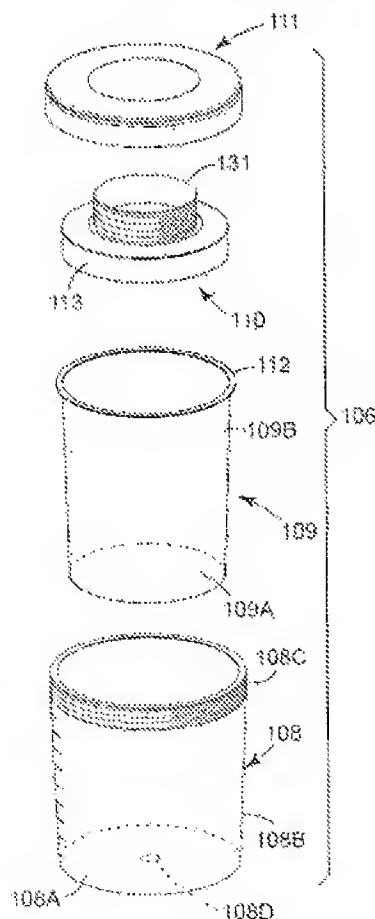


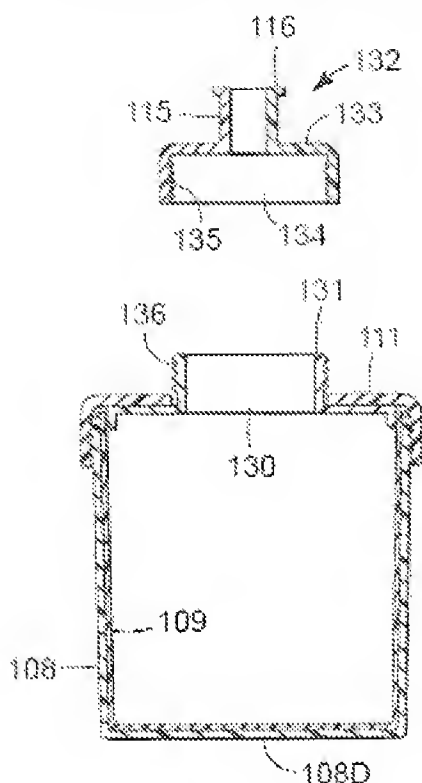
FIG. 8

Appellants' invention substantially improves upon the paint pot or reservoir in Joseph by allowing a user to easily add paint to the reservoir without disassembling it.

Referring to Fig. 8 for illustrative purposes, Appellants' invention, as described in claim 1, is directed to a liquid supply assembly for use with a gravity-fed spray gun (not shown here). The liquid supply assembly comprises a reservoir 106 for a liquid to be sprayed. Reservoir 106 comprises a liner 109 having a first end, a second end 109A spaced from the first end, a side wall 109B extending from the first end to the second end, a base at the second end, and an opening defined by the first end, wherein the liner 109 is able to stand on its own, unsupported.

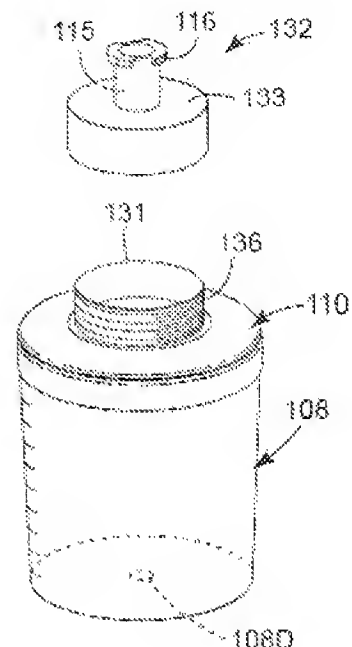
To facilitate review of this appeal, Appellants have created two drawing figures by combining Figs. 9 and 11 (below right) and Figs. 10 and 12 (below left).

With reference to these drawing figures, the reservoir further includes a lid 110 configured to fit within the opening in liner 109. The lid has a central opening 130. The reservoir also includes a cap member 132 positioned over the lid 110, the cap member having a



spout 131 providing a fluid outlet communicating with liner 109, wherein the spout is connectable to a spray gun and wherein opening 130 in lid 110 is oversized relative to spout 131.

The reservoir further includes an outer container 108 for supporting liner 109. Cap member 132 is releasably secured to the reservoir, and a marginal edge of opening 130 in lid 110 is spaced inwardly from the side wall at the first end of liner 109. The reservoir can be detached from cap member 132 for adding fluid to the reservoir through opening 130 in lid 110.



The internal diameter of spout 115 is considerably smaller than the diameter of central opening 130 in lid 110. For example, in one embodiment, spout 115 has an internal diameter of approximately 1/2" and central opening 130 has an internal diameter of approximately 2". The spout is sized so that it can be connected to the inlet of a spray gun, while opening 130 is oversized relative to the required flow when the reservoir is connected to the spray gun. This permits fast-filling of the reservoir because liquid can be added through opening 130 when cap member 132 is removed.

As a result, if it is desired to top-up the reservoir in use, cap member 132 can be removed by unscrewing the connection between spout 131 and cap member 132 to provide access to opening 130. Liquid can then be added to the reservoir through opening 130, cap member 132

reattached, and the reservoir re-connected to the spray gun. Unlike in Joseph, the reservoir can be refilled without disassembling it.

### C. Lintvedt

Lintvedt describes a pliant container for storing a liquid.<sup>2</sup> Referring to Figures 1 and 2, shown here, container 20 is used in conjunction with a conventional hand held paint gun 10 and is inserted into a cup 16. A siphon or dip tube 14 extends from the bottom of the spray gun into

cup 16, terminating near the bottom thereof.<sup>3</sup>

Container 20 is attached to dip tube 14 by means of a resilient plug 22 having a central aperture 24. A sealing cap 26 with a central aperture 28 aligns with aperture 24 in plug 22, and threads 30 are engaged with mating threads 32 on container 20.

According to Lintvedt, to

prepare container 20 for use:

A frusto conical resilient plug [22] having a central opening [24] through which the dip tube [14] passes [is provided] and when in use the opening [24] registers with the opening [28] in the screw cap [26]. The plug [22] is placed between the opening in the pliant container [20] and the inside of the screw cap [26] and the dip tube [14] is inserted through the opening [28] in the cap [26] and [the opening 24 in] the plug [22]. The plug end is insertable into the opening in the pliant container [20] and when the cap [26] is screwed onto the threads [32] around the opening the plug [22] is forced into the opening in the pliant container [20] and against the dip tube [14] sealing the container [20] and the dip tube [14] as an integral sealed unit.<sup>4</sup>

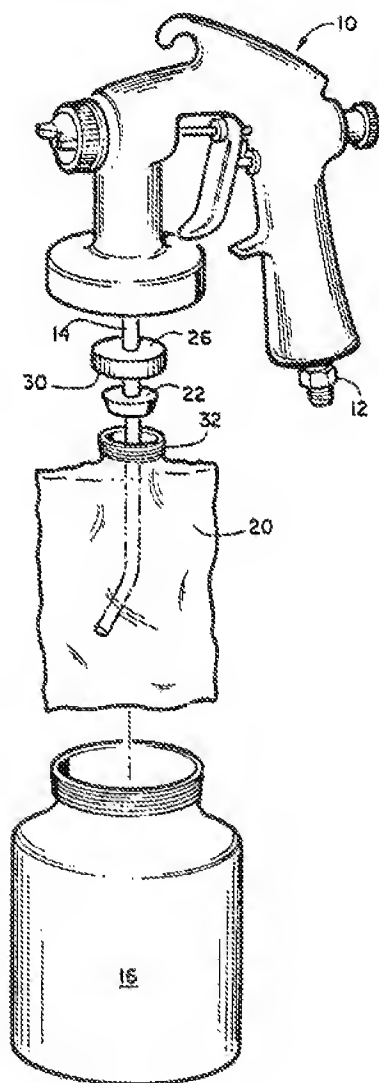


FIGURE 1

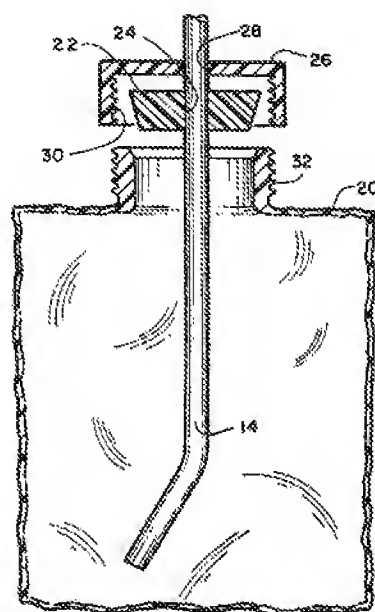


FIGURE 2

<sup>2</sup> See Title.

<sup>3</sup> Column 3, lines 15-24.

After use, container 20 can be refilled if it is empty.<sup>5</sup> According to Lintvedt:

When all of the liquid is dispensed from the pliant container, the pliant container can be removed by reversing the above sequence and be refilled with a like liquid or discarded.<sup>6</sup>

Thus Lintvedt suffers from the same user challenges as does Joseph. That is, container 20 can only be refilled by disassembling dip tube 14, plug 22, and cap 26 so that fluid can be added to container 20 through the large central opening in the container.

#### **D. The Patent Office's Rejection**

The Patent Office rejected claims 1, 3-7, 11, 13-15, 20-27, 30-37, 40 and 42-45 under 35 U.S.C. §103(a) as being unpatentable over Joseph in view of Lintvedt. The basis for the rejection was clarified in the personal interview conducted on August 5, 2009, and Appellants' September 16, 2009 response following that interview.

During the personal interview the Examiners explained that lid 15 (having central aperture 16 and connector tube 17) and collar 20 (referred to by the Patent Office as a "cap member") in Joseph were being replaced by Lintvedt's plug 22 (having central aperture 24), cap 26, and dip tube 14. Plug 22 with central aperture 24 was equated to Appellants' claimed "lid having a central opening," and cap 26 and dip tube 14 were equated to Appellants' claimed "cap member having a spout."

On the next page, to facilitate the following discussion, Appellants have conceptually depicted the substitution and reconstruction of Joseph proposed by the Patent Office. Specifically, Appellants have reproduced Fig. 2 from Joseph on the top left and Fig. 4 from Joseph on the bottom left and, on the right, have illustrated how replacing Joseph's lid 15 and collar 20 with Lintvedt's plug 22, cap 26, and dip tube 14 might appear.

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<sup>4</sup> Column 1, line 68 to column 2, line 14.

<sup>5</sup> Column 3, lines 50-51.

<sup>6</sup> Column 2, lines 20-23.

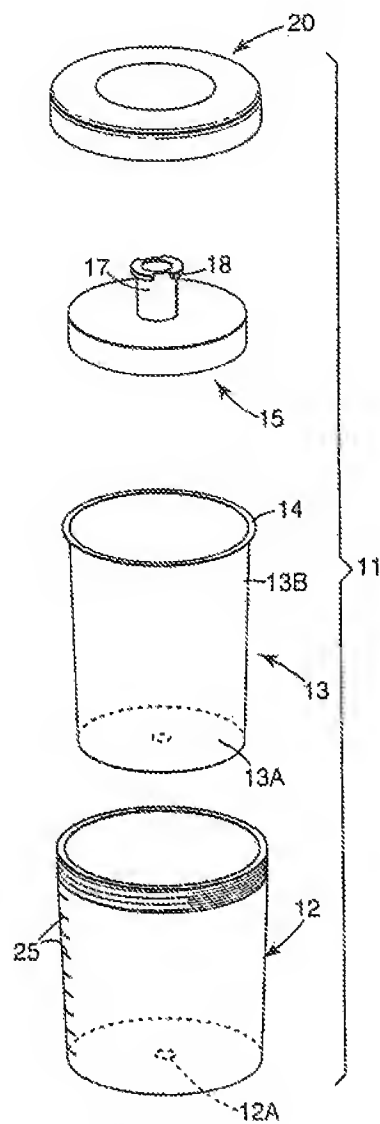


Fig. 2

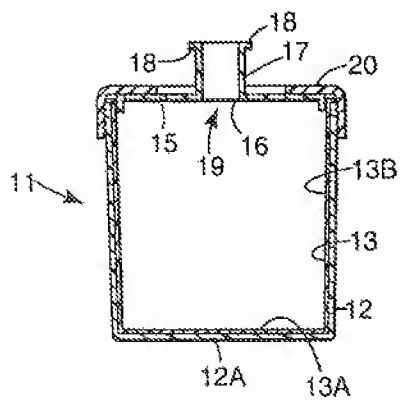
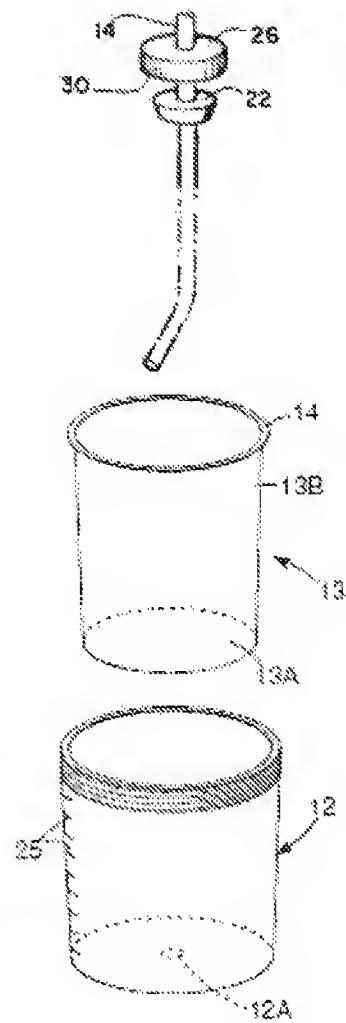
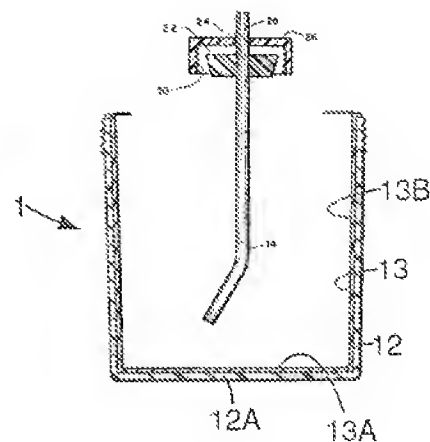


Fig. 4



### **E. Summary of Appellants' Arguments**

As explained in more detail in the following sections, the Patent Office has not established a *prima facie* case of obviousness based on Joseph in view of Lintvedt because:

1. There is no rational underpinning for the reason given to combine the references;
2. Combining the references renders Joseph unsatisfactory for its intended purpose;
3. Combining the references changes Joseph's principle of operation; and
4. Combining the references does not account for all of Appellants' claim elements.

### **F. There is No Rational Underpinning for the Reason Given to Combine Joseph and Lintvedt**

The Manual of Patent Examining Procedure (M.P.E.P.) repeatedly emphasizes the importance of a rejection under 35 U.S.C. §103 being supported by clearly articulated reasons that have a *rational underpinning*.

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning *with some rational underpinning* to support the legal conclusion of obviousness." *KSR*, 550 U.S. at \_\_\_\_\_, 82 USPQ2d at 1396.<sup>7</sup>

According to the Office action dated June 16, 2009:

[I]t would have been obvious to one of ordinary skill in the art at the time of the invention to have motivation to modify the cap member of Joseph et al. with the cap member of Lintvedt et al. to for[m] a better seal (col 3, lines 39-49).

In response to Appellant's remarks submitted September 16, 2009, the Patent Office revised its analysis – the motivation to modify the cap member of Joseph became forming a seal, not forming a *better* seal as previously argued. The Patent Office said:

[I]t would have been obvious to one of ordinary skill in the art at the time of the invention to have motivation to modify the cap member of Joseph et al. with the cap member of Lintvedt et al. to form a seal (col 3, lines 39-49).<sup>8</sup>

<sup>7</sup> M.P.E.P. §2141 (III), italics added. See also, M.P.E.P. §2142 and §2143.

<sup>8</sup> Office action dated December 9, 2009.

The Patent Office explained that:

[I]t is irrelevant as to whether the seal of Joseph et al. is superior or not as the sealing features of Lintvedt et al. provide for a different type of seal.

To justify combining Joseph and Lintvedt, the Patent Office cited column 3, lines 39-49 from Lintvedt in its September 16 and December 9 Office actions. This passage describes how screwing cap 26 onto container 20 forces plug 22 against the walls of the opening in container 20 and dip tube 14, so that container 20 can be sealed before placing it into cup 16. The Patent Office asserted that, in Lintvedt, the combination of cap 26, plug 22, and dip tube 14 provides “a different type of seal” for container 20 than Joseph’s combination of lid 15 and collar 20 provides for container 12 and liner 13. From this the Patent Office concluded that a person having ordinary skill in the art would have combined Joseph and Lintvedt in order to “provide for a different type of seal.”

For at least two reasons, there is *no rational underpinning* for this conclusion.

*First*, Joseph *already has an excellent seal* because, without an excellent seal between lid 15 / collar 20 and container 12 / liner 13, the operation of Joseph’s spray apparatus would be compromised. As explained by Joseph, “[a]s paint is removed from within the liner 13, the sides of the liner collapse as a result of decreased pressure within the liner.”<sup>9</sup> In the absence of a robust seal, air or paint would leak from liner 13 and would prevent the pressure inside the liner from decreasing so that the liner can collapse. Much to the contrary, Lintvedt is *not* constrained in this way – a less robust seal does not preclude Lintvedt from functioning. Nothing suggests that the seal in Joseph is inadequate, needs to be improved, or that a different type of seal is desired or would be advantageous. A person having ordinary skill in the art at the time of the invention had *no reason* to provide Joseph with a different type of seal and the references provide no teaching, suggestion or motivation for doing this.

*Second*, combining Joseph and Lintvedt is impermissible hindsight reconstruction of Appellants’ claimed invention because the combination is premised only on “solving” a fictitious problem – that Joseph needs a different type of seal. A person having ordinary skill in the art at the time of the invention would *not* have combined Joseph and Lintvedt in an attempt to solve a hypothetical problem, especially when Joseph already has an excellent seal.

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<sup>9</sup> Page 10, lines 4-6.

### G. Combining Joseph and Lintvedt Renders Joseph Unsatisfactory for Its Intended Purpose

According to the M.P.E.P.:

If [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.<sup>10</sup>

Joseph discloses a paint pot 11 that is intended for use with a gravity-fed spray gun 1<sup>11</sup>. The normal orientation of the spray gun places paint pot 11 (comprising container 12 and liner 13) *above* the spray gun (i.e., in an inverted orientation). Paint is withdrawn from paint pot 11 through lid 15 by way of connector tube 17. See Fig. 6.

Replacing lid 15 and connector tube 17 from Joseph with plug

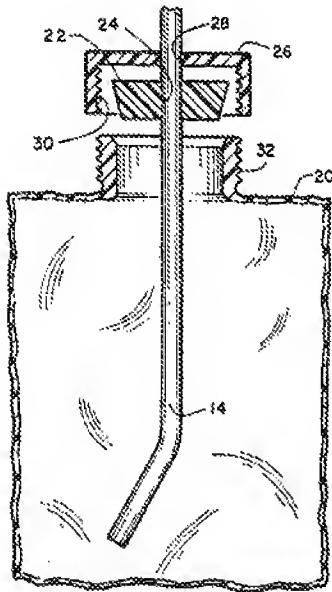


FIGURE 2

inverted orientation, hardly any paint could be sprayed before the level of the paint in paint pot 11 fell below the end of the dip tube. Most of the paint in paint pot 11 would not be sprayed; paint pot 11 would remain essentially full. Since this is clearly contrary to the intended purpose of Joseph and would render Joseph unsatisfactory for its intended purpose, one of ordinary skill

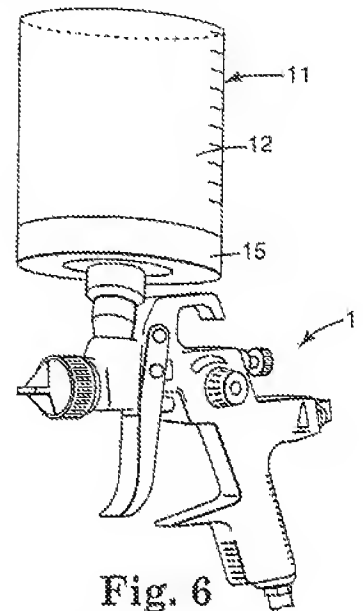


Fig. 6

22 and dip tube 14 from

Lintvedt, as proposed by the

Patent Office, results in a

modified paint pot in which

paint must be withdrawn from

the pot through the dip tube. Lintvedt's Figure 2 clearly

shows that dip tube 14 extends nearly to the bottom of

container 20. Fig. 2 is an exploded view. Once

assembled, dip tube 14 would be even closer to the

bottom of container 20.

Modifying Joseph by adding a dip tube to withdraw paint from paint pot 11 would render Joseph unsatisfactory for its intended purpose because, in an

<sup>10</sup> See, Manual of Patent Examining Procedure §2143.01(V).

<sup>11</sup> Paint pot 11 can be used on the spray gun of Fig. 1 (see page 8, lines 8-10) and Fig. 1 illustrates a typical gravity-fed spray gun (see page 7, lines 12-13).

in the art at the time of the invention would not have combined Joseph and Lintvedt in the manner suggested by the Patent Office. There is no suggestion or motivation for the Patent Office's modifications.

Responding to Appellants' arguments, the Patent Office commented in its December 9, 2009, Office action that "the sizes depicted in the drawings are relative and subject to common sense in real world applications." However, in the real world, one would not combine Joseph and Lintvedt because, as explained above, hardly any paint could be sprayed from Joseph's paint pot before the level of the paint fell below the end of the dip tube. Since most of the paint in paint pot 11 would not be sprayed, the product resulting from the combination of Joseph and Lintvedt has no application in the real world. Common sense dictates against the combination.

#### H. Combining Joseph and Lintvedt Changes Joseph's Principle of Operation

According to the M.P.E.P.:

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."<sup>12</sup>

As explained below, liner 13 in Joseph collapses during normal use. A collapsed liner 13 is shown in Fig. 7.

As paint is removed from within the liner 13, the sides of the liner collapse as a result of decreased pressure within the liner. The base of the liner, being more rigid, retains its shape so that the liner tends to collapse in the longitudinal rather than the transverse direction thereby reducing the possibility of pockets of paint being trapped in the liner.<sup>13</sup>

The Patent Office modifies Joseph by inserting dip tube 14 into liner 13. Lintvedt's dip tube extends nearly to the bottom of container 20. (See Fig. 2, reproduced on page 15.) Consequently, modifying Joseph to include dip tube 14 similarly positions the dip tube near the bottom of Joseph's liner 13 (see the drawing below simulating the combination of Joseph and Lintvedt). This substantially

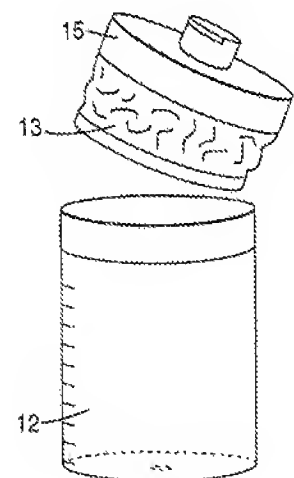
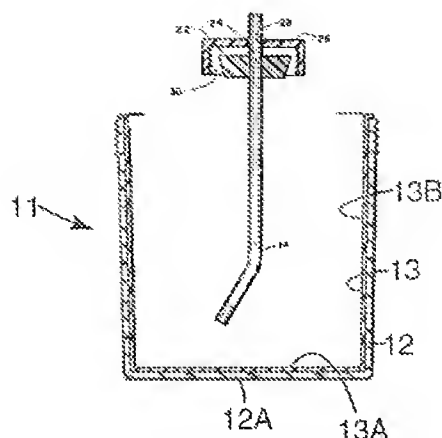


Fig. 7

<sup>12</sup> See, Manual of Patent Examining Procedure §2143.01(VI).

<sup>13</sup> Page 10, lines 4-8.

changes Joseph's principle of operation because the dip tube interferes with the ability of liner 13 to collapse longitudinally. As a result, these references are *not* sufficient to render Appellants' claims *prima facie* obvious.



Responding to Appellants' arguments, the Patent Office commented in its December 9, 2009, Office action that:

[T]he sizes depicted in the drawings are relative and subject to common sense in real world applications, however it should also be noted that the pliant container of Lintvedt et al. is collapsible as well and therefore the dip tube would still be suitable in the pliant, collapsible container of Joseph '539.

Whether or not Lintvedt's container is pliant and collapsible is irrelevant because adding Lintvedt's dip tube 14 to Joseph *prevents Joseph's liner 13 from collapsing longitudinally* as described by Joseph. The product resulting from the combination of Joseph and Lintvedt has no application in the real world and common sense dictates against the combination.

### I. Combining Joseph and Lintvedt Does Not Account for All of the Elements in Appellants' Claim 1

Appellants' claim 1 specifies that "the reservoir can be detached from the cap member for adding fluid to the reservoir through the opening in the lid." Combining Joseph and Lintvedt does not account for this element.

The Patent Office's proposed approach requires detaching paint pot 11 (in Joseph) from cap 26 (in Lintvedt) so that fluid can be added to paint pot 11 through opening 24 in plug 22 (from Lintvedt). However, as can be easily seen from the drawing simulating the combination of Joseph and Lintvedt, opening 24 in plug 22 only becomes available if dip tube 14 is also removed. For several reasons, a person having ordinary skill in the art at the time of the invention would not do this in order to add fluid to paint pot 11.

*First*, because plug 22 is compressed against dip tube 14 when the plug is inserted into the container, there is no assurance that the dip tube could even be removed so as to access opening 24 in plug 22. Following Lintvedt's own instructions, plug 22 and cap 26 *are removed from container 20 before releasing dip tube 14*.

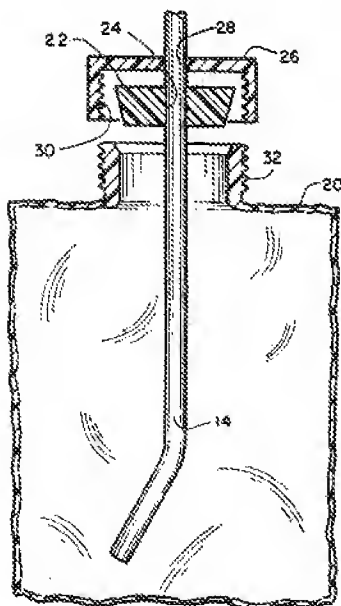
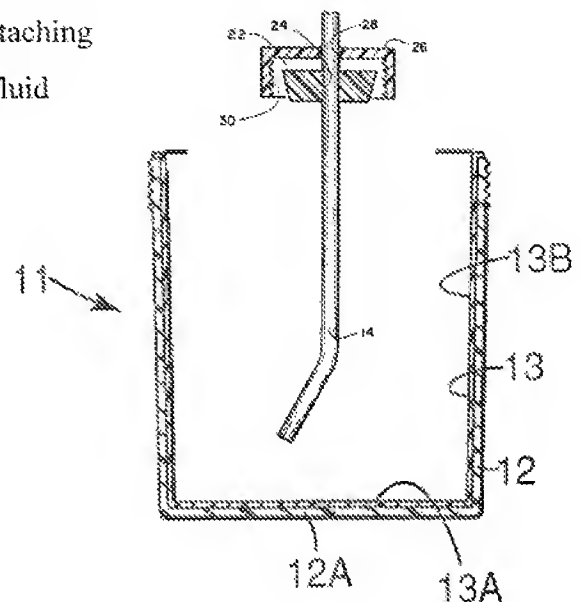


FIGURE 2



*Second*, even Lintvedt does not use opening 24 for refilling his container. He disassembles the entire unit by removing dip tube 14, plug 22 and cap 26 so that container 20 can be refilled through the open top of the container. Thus, Lintvedt *teaches away from* the very approach suggested by the Patent Office.

*Third*, the very small diameter of opening 24 would be impractical to use as a filling port without spilling the paint or other liquid being added to the container. In addition, dried paint could accumulate in opening, making it difficult to reinsert dip tube 14 or to form a sealed unit. As explained in the present

application, refilling Joseph's paint pot through connector tube 17 in lid 15 is problematic. Combining Joseph and Lintvedt suffers from the same problem; it does not solve that problem. A person having ordinary skill in the relevant art would not combine Joseph and Lintvedt in the manner proposed by the Patent Office.

Responding to Appellants' arguments, the Patent Office commented in its December 9, 2009, Office action that "the hole in the cap of Lintvedt et al is still capable of performing the claimed limitation." However, this ignores the fact that "the hole in the cap of Lintvedt" is not available until dip tube 14 is removed. Since this requires that plug 22 and cap 26 be removed from container 20 first, the plug is no longer attached to the container to enable fluid to be added to the container through the plug.

#### J. Claim 3

Claim 3 depends from claim 1 and specifies that the liner is collapsible as liquid is withdrawn during use. Combining Joseph and Lintvedt positions Lintvedt's dip tube 14 at the bottom of Joseph's liner 13 thereby interfering with the ability of liner 13 to collapse as liquid is withdrawn during use of the liquid supply assembly. Therefore, claim 3 is not obvious in view of Joseph and Lintvedt because combining these references does not provide the subject matter of claim 3.

#### K. Claim 4

Claim 4 depends from claim 3 and specifies that the side wall of the liner is flexible in comparison to the base so as to be capable of deforming to collapse the liner in an axial direction from the second end towards the first end. Combining Joseph and Lintvedt positions Lintvedt's dip tube 14 at the bottom of Joseph's liner 13 thereby rendering the liner incapable of collapsing in an axial direction from the second end towards the first end. Fig. 7 from Joseph illustrates how liner 13 collapses. Claim 4 is not obvious in view of Joseph and Lintvedt because combining these references does not provide the subject matter of claim 4.

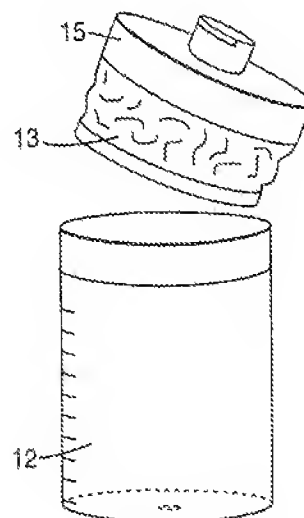


Fig. 7

### L. Claims 13 to 15, 23 to 27, 30 to 36, and 44

Each of claims 13 to 15, 23 to 27, 30 to 36, and 44 describe the cap member in more detail. In the Office actions, the Patent Office identified passages and/or drawings from Joseph purportedly describing the features of these claims (or otherwise relied upon Joseph). However, the Patent Office's combination of Joseph and Lintvedt relies upon *Lintvedt* to provide the cap member, not Joseph. Thus, any description from Joseph regarding these elements is irrelevant. The Patent Office has not articulated a *prima facie* case for these claims being obvious.

### M. Claim 20

Claim 20 was rejected by the Patent Office as being unpatentable over Joseph in view of Lintvedt. According to the Patent Office, "Regarding to claim 20..., Joseph et al. '39 teaches all the limitations of the claim, except for the opening in the lid dimensions of 50-60 mm and the spout diameter of 10-15 mm." However, claim 20 serially depends from claims 17, 18 and 19, and none of these claims was rejected as being unpatentable over Joseph in view of Lintvedt. Accordingly, the rejection of claim 20 is *prima facie* deficient because, by the Patent Office's own admission, the combination of Joseph and Lintvedt *cannot* teach all the limitations of claim 20 because claims 17 to 19, from which claim 20 depends, were *not* rejected over these references alone.

### N. Claim 37

Claim 37 specifies that the cap member is provided with a removable element to close the spout. According to the Patent Office, "Lintvedt et al. discloses the cap member provided with a removable element to close the spout (34 and 26 of figure 3)." Figure 3 illustrates "the device sealed prior to use."<sup>14</sup> Element 34 is a removable plug that closes opening 28 in cap 26; it does not close dip tube 14 (which the Patent Office relies upon for Appellants' claimed spout) because dip tube 14 is not added until *after* plug 34 has been removed.

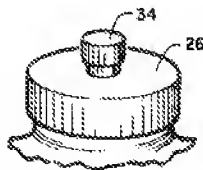


FIGURE 3

To prepare the pliant container for use the sealing cap is removed and a similar cap [26] with a central opening [28] for the dip tube [14] to pass therethrough is provided.<sup>15</sup>

<sup>14</sup> Column 3, lines 10-11.

<sup>15</sup> Column 1, lines 66-68.

**O. Claim 40**

Claim 40 depends from claim 1 and specifies that the cap member has a base and a spout. According to the Patent Office, “figure 1 of Lintvedt et al. teaches the cap member with a base (26) and a spout (14).”<sup>16</sup> However, Lintvedt does not describe a cap member that has a base and a spout. Dip tube 14 (i.e., the “spout” according to the Patent Office) is not part of cap 26. Since assembling the Lintvedt container requires that “the dip tube is inserted through the opening in the cap,”<sup>17</sup> it cannot be asserted that the cap member has a spout.

**II. Second Ground of Rejection**

Claims 9, 10, 12 and 17-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph in view of Lintvedt and further in view of PCT Publication no. WO 02/085533. These claims directly or indirectly depend from claim 1 and the arguments presented for the “First Ground of Rejection” are incorporated herein by reference. If the rejection of claim 1, or any claim from which any of claims 9, 10, 12 or 17-19 depend, is set aside on appeal, then the rejection of any of claims 9, 10, 12 and 17-19 that depend from those claims should also be set aside for at least the same reasons.

**III. Third Ground of Rejection**

Claims 16, 28 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph in view of Lintvedt and further in view of U.S. Patent No. 6,595,441. These claims indirectly depend from claim 1 and the arguments presented for the “First Ground of Rejection” are incorporated herein by reference. If the rejection of claim 1, or any claim from which any of claims 16, 28 and 29 depend, is set aside on appeal, then the rejection of claims 16, 28 and 29 that depend from these claims should also be set aside for the same reasons.

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<sup>16</sup> Office action of December 9, 2009, page 7.

<sup>17</sup> Column 2, lines 5-6.

CONCLUSION

For the foregoing reasons, Appellants respectfully submit that the Examiner has erred in rejecting this application. The rejection of claims 1, 3-7, 9-40 and 42-44 under 35 U.S.C. §103(a) should be reversed.

Respectfully submitted,

June 8, 2010  
Date

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CLAIMS APPENDIX

1. (Previously presented) A liquid supply assembly for use with a gravity-fed spray gun comprising:

a reservoir for a liquid to be sprayed, the reservoir comprising:

a liner having a first end, a second end spaced from the first end, a side wall extending from the first end to the second end, a base at the second end, and an opening defined by the first end, wherein the liner is able to stand on its own, unsupported; a lid configured to fit within the opening in the liner, the lid having a central opening; a cap member positioned over the lid, the cap member having a spout providing a fluid outlet communicating with the liner, wherein the spout is connectable to a spray gun and wherein the opening in the lid is oversize relative to the spout; and

an outer container for supporting the liner wherein the cap member is releasably secured to the reservoir and a marginal edge of the opening in the lid is spaced inwardly from the side wall at the first end of the liner, and the reservoir can be detached from the cap member for adding fluid to the reservoir through the opening in the lid.

2. (Cancelled)

3. (Previously presented) The assembly of claim 1 wherein the liner is collapsible as liquid is withdrawn.

4. (Previously presented) The assembly of claim 3 wherein the side wall of the liner is flexible in comparison to the base so as to be capable of deforming to collapse the liner in an axial direction from the second end towards the first end.

5. (Previously presented) The assembly of claim 4 wherein the liner is provided with a comparatively-rigid base at the second end such that the liner can be inverted and stood on the base for adding liquid through the opening in the liner.

6. (Previously presented) The assembly of claim 5 wherein the liner is formed in one piece.

7. (Previously presented) The assembly of claim 5 wherein the base and side wall are formed in one piece with the lid being formed as a separate piece that is secured to the side wall.

8. (Cancelled)

9. (Previously presented) The assembly of claim 7 wherein the lid is permanently secured to the liner.

10. (Previously presented) The assembly of claim 9 wherein the lid is welded or adhesively bonded to the liner.

11. (Previously presented) The assembly of claim 7 wherein the lid is releasably secured to the liner.

12. (Previously presented) The assembly of claim 11 wherein the lid is clamped to the liner.

13. (Previously presented) The assembly of claim 1 wherein the cap member is a screw-fit on the reservoir.

14. (Previously presented) The assembly of claim 1 wherein the cap member is a snap-fit on the reservoir.

15. (Previously presented) The assembly of claim 13 wherein the cap member comprises a base defining a socket with an internal screw thread engageable with an externally threaded spigot bounding the opening in the reservoir.

16. (Previously presented) The assembly of claim 13 wherein the opening in the reservoir has an internal screw thread and the cap member has a base provided with an externally threaded portion engageable with the internal screw thread.

17. (Currently amended) The assembly of claim 1 wherein the spout has a diameter less than half the diameter of opening in the lid.
18. (Previously presented) The assembly of claim 17 wherein the spout has a diameter less than a third the diameter of the opening in the lid.
19. (Previously presented) The assembly of claim 18 wherein the spout has a diameter less than a quarter the diameter of the opening in the lid.
20. (Previously presented) The assembly of claim 19 wherein the opening in the lid has a diameter of 50-60 mm and the spout has a diameter of 10-15 mm.
21. (Previously presented) The assembly of claim 1 wherein the reservoir has a central longitudinal axis and the opening is located centrally on the longitudinal axis.
22. (Previously presented) The assembly of claim 21 wherein the spout is coaxial with the opening.
23. (Previously presented) The assembly of claim 1 wherein the cap member is releasably connectable to the spraying apparatus.
24. (Previously presented) The assembly of claim 23 wherein the cap member and spraying apparatus are provided with co-operating bayonet type formations.
25. (Previously presented) The assembly of claim 24 wherein the spraying apparatus is provided with a socket to receive the spout and the bayonet type formations are engageable to retain the spout in the socket.

26. (Previously presented) The assembly of claim 25 wherein the bayonet type formations are engageable within the socket.
27. (Previously presented) The assembly of claim 26 wherein the spout is provided with opposed bayonet lugs at the free end that are received in bayonet grooves in the socket.
28. (Previously presented) The assembly of claim 25 wherein the bayonet type formations are engageable externally of the socket.
29. (Previously presented) The assembly of claim 28 wherein the socket has an external flange co-operable with a pair of hook members extending from the cap member on opposite sides of the spout.
30. (Previously presented) The assembly of claim 1 wherein the cap member includes a filter for removing any unwanted solid particles contained in the liquid withdrawn from the reservoir.
31. (Previously presented) The assembly of claim 30 wherein the filter is located in the spout.
32. (Previously presented) The assembly of claim 30 wherein the filter is located in the cap member to extend across the inner end of the spout.
33. (Previously presented) The assembly of claim 1 wherein the opening is sealed.
34. (Previously presented) The assembly of claim 33 wherein the opening is sealed using a removable closure or a rupturable membrane.
35. (Previously presented) The assembly of claim 34 wherein the cap member is adapted to rupture the membrane.

36. (Previously presented) The assembly of claim 33 wherein the cap member is adapted to seal the opening until it is desired to use the liquid.

37. (Previously presented) The assembly of claim 36 wherein the cap member is provided with a removable element to close the spout.

38. (Previously presented) The assembly of claim 36 wherein a rupturable membrane is provided across the outer end of the spout.

39. (Previously presented) The assembly of claim 38 wherein the spraying apparatus is adapted to rupture the membrane.

40. (Previously presented) The assembly of claim 1 wherein the cap member has a base and a spout, the cap member being releasably secured to the reservoir by engagement of complementary screw threads on the base and on the end wall around the opening, and the spout extends from the base away from the reservoir, the spout providing a fluid outlet of reduced cross-section relative to the opening.

41. (Cancelled)

42. (Previously presented) The assembly of claim 40 wherein the reservoir has a central longitudinal axis and the opening and spout are arranged coaxially with respect to the longitudinal axis.

43. (Previously presented) The assembly of claim 40 wherein the screw threads on the reservoir and cap member require more than one complete turn to secure the reservoir, and the cap member is releasably connectable to the spray gun by means requiring less than one complete turn.

44. (Previously presented) The assembly of claim 1 wherein the opening is oversize relative to the flow requirements when the reservoir is connected to the spray gun in use, and the fluid outlet provided by the spout is of reduced cross-section relative to the opening, wherein the opening permits fast-filling of the reservoir when the cap member is detached from the reservoir for adding fluid to the reservoir through the opening.

45-47. (Cancelled)

EVIDENCE APPENDIX

None.

**RELATED PROCEEDINGS APPENDIX**

None.